

NEUROSCIENCE NEWSLETTER

Volume 26

Number 11

Summer 2010



Director, UTNP:
Michael G. Fehlings MD, PhD



Director, CPIN:
David R. Hampson, PhD

Planning & Operations: **Alexander A. Velumian, PhD, DSc**

Program Coordinator: **Frazer Howard**

UTNP Administrative Office: **MP 11-315, Toronto Western Hospital**

Collaborative Program in Neuroscience Office:

Room 904, Leslie Dan Faculty of Pharmacy, University of Toronto

Email: p.neuroscience@utoronto.ca | Telephone: 416-978 8761 Fax: 416-978-8511 | Website: www.neuroscience.utoronto.ca

PROGRAM NEWS

DISTINGUISHED LECTURESHIP SERIES

Date | September 10, 2010

Topic | **The evolutionary significance of the insular cortex for human awareness of feelings from the body**

Speaker | **DR. BUD CRAIG** Director, Atkinson Pain Research Laboratory, Barrow Neurological Institute

Host | Dr. Jonathan O. Dostrovsky



Date | September 20, 2010

Topic | **Adult Brain Stem Cells and Neural Plasticity**

Speaker | **DR. ARTURO ALVAREZ-BUYLLA** University of California, San Francisco

Host | Dr. Michael G. Fehlings



UTNP STRATEGIC PLANNING REPORT

In January 2010, the UTNP leadership, along with the Advisory Council, brought together over 60 members of the UofT neuroscience community in a planning retreat to developing strategies, goals and priorities to guide the UTNP over the next three years. The planning retreat discussions proposed a vision and several long-range goals for UTNP, along with a number of shorter-term goals and actions.

The report from the planning retreat is now available on the UTNP website:

neuroscience.utoronto.ca/about/retreat10.htm

ZHONG-PING FENG JOINS LECTURE SELECTION COMMITTEE

We are pleased to announce that **Dr. Zhong-Ping Feng** has accepted nomination to the UTNP Distinguished Lectureship Selection Committee for 2010-11 as the Physiology representative. Zhong-Ping will be a strong and enthusiastic contributor to the committee, with excellent contacts in the fields of synaptic physiology, calcium imaging and molecular neuroscience. We would like to extend a heartfelt thank you to **Dr. Evelyne Lambe**, whose place Zhong-Ping will be taking, for her 4 years of leadership, support and service to the Lectureship Committee.

KANG LEE AWARDED OISE'S FIRST MAJOR NIH GRANT

UTNP member Professor Kang Lee's research on how infants and children process and categorize facial information has brought the Ontario Institute for Studies in Education its first major grant from the prestigious U.S. National Institutes of Health.

<http://bit.ly/cjHCnk> [OISE News]

Upcoming Speakers for 2010-11	
Dr. Josep Dalmau UPenn	October 1, 2010
Dr. Wendy Suzuki NYU	October 28, 2010
Dr. Emmanuel Mignot Stanford	December 10, 2010
Dr. David Colman McGill	January 24, 2011
Dr. Isabelle Peretz UMontréal	February 3, 2011
Dr. Pablo Castillo Einstein CM	February 24, 2011
Dr. Richard Tsien Stanford	March 10, 2011
Dr. Yadin Dudai Weizmann IS	March 31, 2011
Dr. Bruce Dobkin UCLA	June 8, 2011

CPIN Students must attend 75% of the Lectureship Series each year

NEW COURSES

New courses have been added to the list of courses which fulfill CPIN requirements. Course details will be updated on the UTNP website as they are made available from the coordinating department: <http://neuroscience.utoronto.ca/students/gradcourses.htm>
All new incoming PhD students joining the program in September 2010 are required to take a core course.
Please see <http://neuroscience.utoronto.ca/students/requirements/cpinchanges.htm> for more info

Code	Title	Coordinator(s)	Department
JEB 1444H	Neural Engineering	B. Bardakjian	IBBME
JEB 1451H	Neural Bioelectricity	B. Bardakjian	IBBME
MSC 1081H	Studies in Schizophrenia	Z. Daskalakis	IMS
MSC 1086H	Integrative perspectives in Conciousness and Self-Awareness	J. Perez Velazquez	IMS
MSC 1087H	Neuroimaging Methods using Magnetic Resonance Imaging	A. Crawley	IMS
MSC 1088H	Brain Positron Emission Tomography	R. Mizrahi /N. Vasdev	IMS
PSL 1050H	Advanced Topics: The Hippocampus from Cell to Behaviour	M. Wojtowicz	Physiology
PSL 1071H	Advanced Topics: Computational Neuroscience	F. Skinner	Physiology
PSL 1441H	Systems Level Neuroplasticity	W. Hutchison	Physiology
PSL 1445H	Mechanistic Molecular & Cellular Neuroscience	J. Eubanks, L.R. Mills	Physiology
PSL 1446H	Molecular & Cellular Aspects of Neural Disorders	J. Eubanks, L.R. Mills	Physiology



The University of Toronto Libraries is currently making available a trial version of Brain Navigator until August 14.

Brain Navigator features:

- 2D and 3D atlas for exploring brain structures
- compare atlas plates, species, and upload your own content
- create 3D virtual slices
- annotate and share your work
- links to reference material such as journal articles and encyclopedias
- limited to rat and mouse brain

Authentication (via Utorid or library card&pin) is required to access this resource; registration is required to test all functionality.

Links:

See a 5 minute promotional video (authentication not required) at this address:

<http://gerstein.library.utoronto.ca/research/spotlight/brainnavigator>

Link to the trial version (authentication required) at this address: <http://simplelink.library.utoronto.ca/url.cfm/111726>

Please send any comments on this resource to gail.nichol@utoronto.ca

If you try Brain Navigator, please fill out the user survey:

<http://www.surveymonkey.com/brainnavigatorsurvey>

MARLA SOKOLOWSKI NAMED UNIVERSITY PROFESSOR

UTNP member Professor Marla Sokolowski, Cell & Systems Biology UT Mississauga, has been named University Professor, the highest honour U of T accords its faculty. University Professors are chosen by a committee of distinguished scholars and selection is based on their unusual scholarly achievement and pre-eminence in their particular fields of knowledge. Sokolowski is best known for her discovery of the foraging gene, a cGMP dependent protein kinase that encodes rover and sitter foraging behaviour in *Drosophila*.

<http://bit.ly/utnp-sokolowski> [UT News]

REMEMBERING JAMES FULLARD

UTNP member Professor James Fullard of U of T Mississauga's Department of Biology, who passed away in March 2010, is being honoured with his name on a nature reserve in eastern Ontario.

The James H. Fullard Nature Reserve will be located on the 30-acre Sugarbush Island, which sits at the mouth of Murphy's Bay in Lake Opinicon. Lake Opinicon is on the Rideau Canal, north-east of Kingston, Ont. There are plans to add 50 to 70 acres to the reserve in the future.

Fullard was an insect neuroethologist and sensory ecologist, studying the auditory control of defensive behaviour in insects.

<http://bit.ly/utnp-fullard-remembrance> [UTM News]

NEW B.R.A.I.N. PLATFORM LEADER

Professor Lu-Yang Wang has been announced as the new Leader of the BRAIN platform of the Department of Physiology, effective July 1, 2010. The Departmental Research Platforms play an integral role in both the research and education missions of the Department.

<http://bit.ly/utnp-wang-new-BRAIN-leader> [PhysioLINK]

CRND NAME CHANGE

The Centre for Research in Neurodegenerative Diseases is undergoing a name change. Henceforth, the centre will be identified as the Tanz Centre for Research in Neurodegenerative Diseases (or Tanz CRND). This is in recognition of Dr. Mark M. Tanz, the philanthropist who has, since the centre's founding in 1990, been a generous and ardent supporter of the world-leading research undertaken there to confront Alzheimer's Disease, Parkinson's Disease, Frontotemporal Dementia, Amyotrophic Lateral Sclerosis and Prion Diseases.

<http://bit.ly/utnp-tanz-crnd> [MedEmail]

PUBLICATIONS AND AWARDS

Please send us information regarding recent publications, awards or other achievements from your lab and we will share it with the UT Neuroscience community. Send your notification to the Program office:

p.neuroscience@utoronto.ca

NOTICE TO GRADUATING STUDENTS

Please notify the CPIN office upon your graduation to ensure that you will receive the notation "completed Collaborative Program in Neuroscience" on your degree transcript as well as a separate certificate suitable for framing from the CPIN office to indicate that you have completed the program's requirements. Please inform the office of your mailing address and thesis title. If you have transferred from a Master's degree to a PhD, please notify the CPIN office.

U OF T NEUROSCIENCE EVENTS AND SEMINARS

KREMBIL NEUROSCIENCE CENTRE GRAND ROUNDS

Held Thursdays 8:00am-9:00am

Main Auditorium, 2 West Wing, Room 401

Toronto Western Hospital

ROTMAN ROUNDS

Winter session is now over. Rotman Rounds will resume in September.

CENTRE FOR BRAIN AND BEHAVIOUR CROSSTALKS

Held the last Thursday of every month 4:00pm

DI Multimedia Room (2810J) 2nd Floor Atrium, Diagnostic Imaging, SickKids Hospital

Contact: laurel.brown@sickkids.ca

EPILEPSY JOURNAL CLUB

First Tuesday of every month

Contact Erin Crawford erin.crawford@sickkids.ca for further information

UPCOMING NEUROSCIENCE MEETINGS

6TH LATIN AMERICAN CONGRESS ON EPILEPSY (6° CONGRESO LATINOAMERICANO DE EPILEPSIA)

Cartagena, Columbia

1 - 4 August 2010

<http://www.epilepsiacartagena2010.org/>

4TH MIGRATING COURSE ON EPILEPSY

Serock, Poland

15 - 22 August 2010

More information and online application (deadline 1 February 2010) can be found at: <http://www.epilepsy-academy.org> or contact Petra Novotny, EUREPA at petra@epilepsy-academy.org

12TH EUROPEAN CONFERENCE ON EPILEPSY AND SOCIETY

Porto, Portugal

25 - 27 August 2010

<http://www.epilepsyandsociety.org/>

14TH CONFERENCE ON INTRACRANIAL PRESSURE AND BRAIN MONITORING

September 12–16, 2010

Tubingen Germany

On behalf of the International Advisory Board we would like to welcome all international clinicians and scientists from the field to focus on an intensive week of knowledge-exchange at the old and famous University of Tuebingen, located in the geographical heart of Europe.

The ICP-conference has traditionally been a platform where clinicians from Neurosurgery, Neurology and Intensive Care Medicine meet basic scientists from all possible areas of intercept with the brain, a span that ranges from electric engineers to physicists, and from mathematicians to molecular biologists. We are trying hard to make the conference affordable regarding the "money to scientific benefit ratio" and ask you to contribute to the success of the conference by presenting your latest research related to our topics.

<http://www.icp2010.eu/>

2ND GLOBAL SYMPOSIUM ON THE DIETARY TREATMENTS FOR EPILEPSY AND OTHER NEUROLOGICAL DISORDERS

Edinburgh, Scotland

October 5-8th 2010.

Although the ketogenic diet has been used in the treatment of epilepsy for almost 100 years, it is now 15 years since the story of Charlie, who, after failing numerous anti-epileptic drugs became seizure free and drug free on the ketogenic diet and brought awareness of the possible effects of the diet to a wider population. There is now no question of agreement to its efficacy, not only in epilepsy but also now widening to other neurological conditions. Research into basic mechanisms of action and implementation has also escalated; the number of publications on pubmed about research into the ketogenic diet has risen from <20 in 1996 to >110 in 2008

The first Symposium was held in Phoenix, Arizona in April 2008. This was attended by over 200 participants from varied backgrounds including epilepsy and dietetics. Much discussion was undertaken, and it was agreed that progress would be sufficient to bring individuals together once again in 2010. For further information:

<http://site.matthewsfriends.org/index.php?page=global-symposium-2010>

4TH NATIONAL SPINAL CORD INJURY CONFERENCE

Dates | Thursday October 28, 2010 – Saturday October 30, 2010

Agenda |

<http://www.torontorehab.com/education/scic10proagenda.html>

Location | Fallsview Casino Resort, Niagara Falls, Ontario

Speakers |

<http://www.torontorehab.com/education/scic10speaker.html>

Website | www.sciconference.ca

Contact information | Conference Services:

conferences@torontorehab.on.ca or 416-597-3422 x.3866

THE 10TH INTERNATIONAL CONFERENCE ON ALZHEIMER'S & PARKINSON'S DISEASES (AD/PD 2011)

Explore New Horizons and Emerging Disease Modifying Therapies

SAVE THE DATE!

MARCH 9-13, 2011

We are pleased to announce the 10th International Conference on Alzheimer's & Parkinson's Diseases (AD/PD 2011), which will be held in Barcelona in 2011.

This conference will feature a diverse, multi-disciplinary scientific program covering the most recent research and discoveries in etiology, neurobiology, diagnosis, imaging, treatment and therapy.

POSITIONS AVAILABLE

UNIVERSITY OF TORONTO & AFFILIATED INSTITUTIONS

TA POSITIONS - HUMAN BIOLOGY

The Human Biology Program is offering a number of TA positions for Graduate students interested in including teaching as a part of their academic education. TA positions are available in a number of our undergraduate courses. The positions vary and range from 35 hours to 65 hours and the rate of payment is in accordance with the new CUPE 3902 Unit 1 collective agreement. Please see the links below for job position postings information and application form. Please post the job positions on any Graduate bulletin board and/or as an email to your graduate students. If you have any questions please feel free to contact me by phone at 416-946-7609 or by e-mail at human.biology@utoronto.ca
<http://hmb.utoronto.ca/index.php?q=node/168>
<http://hmb.utoronto.ca/>

CIHR Strategic Training Program in
Biological Therapeutics



CIHR PRE- AND POST DOCTORAL FELLOWSHIP OPPORTUNITIES

We are pleased to announce the availability of Canadian Institutes of Health Research-funded graduate student and Post Doctoral Fellowships for our "CIHR Strategic Training Grant in the Development of Biological Therapeutics".

This multi-division University of Toronto program has 14 Principal Mentors and been awarded \$1,800,000 over the next 5 years. In the context of this program, "biological therapeutics" is defined as encompassing nucleic acids such as small interfering RNAs (siRNA), peptides and proteins including antibodies, and viruses and viral vectors. Projects will span the gamut from basic to applied research.

Depending on the research project, Postdoctoral Fellows and graduate students will receive training in bioinformatics, formulation and delivery of nucleic acids and proteins, and the analysis of the metabolism and fate of these macromolecules *in vivo*. Areas of application include neuroscience, cancer, and immunology. Each trainee will have a primary mentor and secondary mentor with whom they spend a minimum of 1 month per year. Our collaborative environment will deepen knowledge and technical skills, promote team oriented research with colleagues, and increase exposure to cross-disciplinary research in the fields of neuroscience, ophthalmology, cancer, immunology, and drug delivery. Finally, through an industrial internship program, this program will also provide opportunities to work (short-term) with the private sector

(pharmaceutical and biotechnology companies) to acquire additional technical skills.

Please see our Website:

http://www.utoronto.ca/biotherapeutics_training/

Please email a CV and *a1 page cover letter outlining your suitability and specific interest in working with one of the 14 mentors to:* biotherapeutics@utoronto.ca

POSTDOCTORAL FELLOW – CAMH

The Addiction Imaging Research Group at the Centre for Addiction and Mental Health (Toronto, Canada) is recruiting a Post-doctoral Fellow (MD and / or Ph.D.) to join the Positron Emission Tomography (PET) brain research centre.

Minimum qualifications are a doctoral degree in a health related field (e.g.: neuroscience, psychology) or MD degree. The successful candidate will have some expertise in computational and statistical methods, and a good working knowledge of brain anatomy. Experience with image analysis will be advantageous, but not required. Good oral and written communication skills are required. The project will focus on a brain PET investigation of the neurochemical events occurring during withdrawal from stimulant drugs.

CAMH is Canada's largest mental health and addiction teaching and research hospital in Canada and is affiliated with the University of Toronto.

Send letter of interest outlining experience and CV to Isabelle Boileau, Ph.D.

Head, Addiction Imaging Research Group
Centre for Addiction and Mental Health
250 College Street

Toronto, Ontario CANADA M5T 1R8
phone: 416-535-8501, ext. 4918
fax: 416-979-6862

e-mail: isabelle_boileau@camh.net

POSITION FOR A FUNCTIONAL MRI SCIENTIST - THE ROTMAN RESEARCH INSTITUTE, BAYCREST CENTRE UNIVERSITY OF TORONTO

The Rotman Research Institute of Baycrest Centre invites applications for an fMRI physicist position. The successful candidate will engage in a research program on the development and application of structural and functional MRI techniques for neuroscience research. While pursuing an independent research program, he/she will be expected to collaborate on diverse studies of human cognition and neurological disorders that involve MRI research resources at Baycrest. The candidate must possess a PhD or equivalent and demonstrated experience in MRI. The Rotman Research Institute has a research-dedicated Siemens 3T TIM Trio MRI and fully-equipped electroencephalography and

magnetoencephalography laboratories in-house. The successful candidate will play a central role in the coordination and operation of the MRI imaging facility.

Examples of research that a successful candidate would conduct include, but not limited to: development and refinement of MR pulse sequences for neuroimaging, development of MR acquisition tools and paradigms for studies in aging; development of novel methods to process and analyze both functional and structural MRI data. The successful candidate will benefit from the large collaborative neuroimaging community at The University of Toronto, and would be eligible for an academic at the assistant to associate professor level. Applications are encouraged from qualified women and men, members of visible minorities, aboriginal peoples and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed initially to Canadian citizens and permanent residents.

Applicants should submit a covering letter describing current research interests and future research goals, a complete C.V., relevant reprints and the names of three potential references to:

Claude Alain, PhD

The Rotman Research Institute

Baycrest Centre for Geriatric Care

3560 Bathurst St, Toronto, Ontario, M6A 2E1

Tel (416) 785-2500, ext 3523; Fax (416) 785-2862

E-mail: calain@rotman-baycrest.on.ca

CANADA

POSTDOCTORAL RESEARCH FELLOW IN BEHAVIOURAL NEUROSCIENCE

The UBC Department of Psychiatry is inviting applications for a position as a Postdoctoral Fellow at the Institute for Mental Health under the supervision of Prof. Allan Young and Dr. Catharine Winstanley. The candidate will work primarily within the Laboratory of Molecular and Behavioural Neuroscience (www.winstanleylab.com) in the Department of Psychology. Research within the lab explores the neural, neurochemical and molecular basis of higher-order cognitive processes such as impulse control and gambling.

The primary responsibility of the postdoctoral fellow will be to implement and conduct a novel line of research into the behavioural and molecular effects of chronic lithium administration using rat models. This position requires a scientist within 3 years of their PhD with advanced training in molecular biology or biochemistry and a keen interest in rodent behavioural testing. Experience with cocaine self-administration would be a significant asset. A strong

grounding in psychology and/or neuroscience is essential. The successful candidate should have good oral and written communication skills, be able to work independently as well as part of a team, and be familiar with statistical analysis using software such as SPSS. Salary will be commensurate with qualifications and experience.

Applications, accompanied by a detailed curriculum vitae and names of three references, should be directed to:

Catharine Winstanley

cwinstanley@psych.ubc.ca

Closing date: Applications will be reviewed starting July 31, 2010 until the position is filled

INTERNATIONAL

INVESTIGATION OF THE FUNCTION AND DEVELOPMENT OF THE PHARMACOLOGY OF HETEROMERIC KAINATE RECEPTORS

This PhD project will focus on the discovery, development and in vitro pharmacological characterization of novel ligands for the kainate type of ionotropic glutamate receptors (GluK1-5) as well as on the characterization of existing ligands at heteromeric recombinant and native kainate receptors (KAR). This project will be carried out primarily within the Dept. of Pharmacology and Pharmacotherapy and the Dept. of Medicinal Chemistry at the Faculty of Pharmaceutical Sciences, University of Copenhagen. This project will be an integrated part of the University of Copenhagen GluTarget programme of excellence (www.glutarget.ku.dk).

<http://www.farma.ku.dk/index.php/Project-1/8440/0/>

For further project information, please contact the project main supervisor:

Darryl Pickering, Ph.D., assoc. prof.

Dept. of Pharmacology and Pharmacotherapy

Faculty of Pharmaceutical Sciences

University of Copenhagen

Universitetsparken 2

2100 Copenhagen

Denmark

email: [picker\(at\)farma.ku.dk](mailto:picker(at)farma.ku.dk)

POSITIONS WANTED

I am looking for a research position in the field of protein expression and interaction.

My current work is focusing on high throughput protein expression in E. coli. During this time I also worked on protein purification and crystallization. I have solid experience in GPCR expression in both Insect cell and Mammalian CHO cell systems. I have over 10 years experience in biochemistry and

molecular biology from my research at the University of Toronto and previous universities.

In addition to my technical expertise, I am known as a strong team player with the ability to work with diverse teams. I have a proven track record of communicating well both in writing and verbally.

Contact:

Dengbo Ma

Telephone: 416-946-3871 (o)/416-497-5927 (h)

Email: dengbo.ma@utoronto.ca

FUNDING ANNOUNCEMENTS

[FOX FOUNDATION FOR PARKINSON'S RESEARCH, MICHAEL J. \(MJFF\)](#) : Rapid Response Innovation Awards - Edmond J.

Safra Core Program for PD Research. To promote testing of novel hypotheses, funding from our Rapid Response Innovation Awards program quickly supports high-risk, high-reward projects with little to no existing preliminary data, but potential to significantly impact our understanding or treatment of PD. **Deadline for Applications: Continuous.**

[U.S. Department of Defense](#) : Fiscal Year 2010 Spinal Cord Injury Research Program (SCIRP) Funding Opportunities. This program was developed to promote research into regenerating damaged spinal cords, arthritis research, and improving rehabilitation therapies that offer real promise for enhancing long-term care of wounded soldiers.

Areas of Interest:

- Clinical Trial Award- Rehabilitation
- Investigator-Initiated Research Award
- Qualitative Research Award
- Translational Research Partnership Award

Deadline for Pre-Applications: August 5, 2010

[Alzheimer's Drug Discovery Foundation \(ADDF\)](#) : Novel

Biomarkers to Accelerate Drug Discovery for Frontotemporal Dementias. Drug discovery for frontotemporal dementias (FTD) has been hindered by the heterogeneity of the disease. FTD specific biomarkers that reflect pathological differences are needed to select appropriate patients for clinical trials and monitor target-specific responses to investigational treatments. The ADDF and AFTD are particularly interested in FTD relevant imaging agents; CSF and plasma based assays; and TDP-43 and tau-focused biomarkers specifically relevant to FTD populations.

Deadline for Letters of Intent: August 26, 2010.

[American Health Assistance Foundation \(AHAf\)](#) : National Glaucoma Research & Alzheimer's Disease Research. The Standard Award provides significant funding for researchers

who have already generated some amount of preliminary data, but often still require significant progress before they can apply to governmental or industrial funding agencies. The Alzheimer's Disease Research program also offers Pilot Awards and Fellowship Awards.

- National Glaucoma Research program. Deadline for Submissions: October 22, 2010.

- Alzheimer's Disease Research Program. Deadline for Submissions: October 19, 2010.

NIH: [Epigenomic Modifications in Neurodevelopment](#) (R01). Also available in a [\(R21 mechanism\)](#). **Deadline: October 20, 2010.**



SUBMISSION & CONTACT INFORMATION

Email: p.neuroscience@utoronto.ca | Fax: 416-978-8511 Attn: Frazer Howard | Submissions to the newsletter must be made by the 25th of the preceding month. Previous issues of the newsletter are posted on our website at: <http://www.neuroscience.utoronto.ca/newsletter> If you no longer would like to receive this newsletter, please contact p.neuroscience@utoronto.ca with subject line "unsubscribe from UTNP Newsletter"